

NIOSH Construction Research Program

Future Directions

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WORKPLACE SAFETY AND HEALTH



Presentation Overview

Chapter 4
Of
Evidence
Package

1. Anticipated industry changes
2. Anticipated Program challenges
3. Role of NORA Construction Sector Council
4. Plans and Vision for the decade ahead

1. Anticipated industry changes?

Potential areas of increasing change include:

- ♦ Intensifying workforce changes
- ♦ Work organization trends
- ♦ Technology and material changes
- ♦ Energy efficiency impacts

(Fundamental characteristics and hazards to continue)

Energy efficiency impacts

Foresee increase in global warming related construction activity

- ◆ New and retrofit construction projects
- ◆ Improving energy efficiency at industrial, utility, commercial, and residential levels
- ◆ Reducing carbon emissions

Need for more energy efficient construction operations

- ◆ Leading to changes in design and conduct of work
- ◆ Changes ---new opportunities or new obstacles for construction safety and health

Construction industry under fire over global warming

2006 issue 44

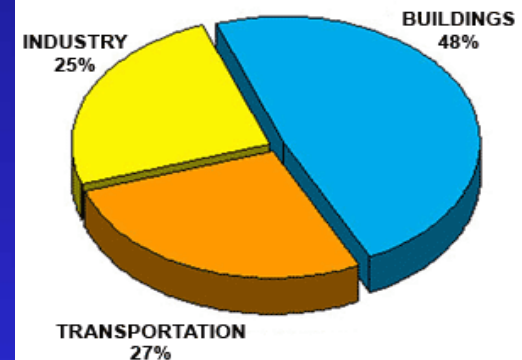
Building

Stern Report points to lack of co-ordination and training as causes of poor quality buildings...

Architects Call for Fifty Percent Reduction by 2010 of Fossil Fuel Used to Construct and Operate Buildings

AIA Supports Ratings Systems and Standards that Contribute to a Sustainable Future.....

For Immediate Release
Washington, DC
December 19, 2005



2. Anticipated Program Challenges

Recruiting and mentoring new researchers to maintain program momentum

- ◆ Researchers reaching retirement age
- ◆ Attracting new social scientists

Balancing research and R2P (Research to Practice)

- ◆ Researching what we don't know AND getting what works implemented
- ◆ Encouraging research on diffusion in construction

Health outcome challenges

- ◆ Need to invest in baselines for tracking progress on health outcomes
- ◆ Latency of outcomes and mobility of workers across employers.... fewer tangible employer incentives

3. NORA Construction Sector Council

- Brings together researchers and practitioners
- 35 members (12 from NIOSH) from 8 industry categories
- Has met 3 times, identified “**top problems**” --- now working on draft goals - plan to meet at least twice a year over the decade
- Resulting “**National Agenda**” will provide strategic input for the Construction industry

The NORA sector approach provides a structure to help identify needs and deliver solutions over the decade



Quick snapshot – How the NORA Council looked at top problem candidate topics

1. What evidence supports this as a top problem?
2. Who is affected? (what trades or industry divisions)
3. Why does the problem persist?
4. What would be the ideal situation?
5. What stage are we at in our knowledge and understanding of this construction problem?
6. Can the problem be described using common priority-setting criteria?
 - Severity, Incidence or Prevalence
 - Size of exposed population
 - Need to improve current performance
 - Likelihood that research will make a difference for addressing this problem?
 - How much change is needed for near-term improvement?
7. From a construction practice perspective, what stage is the problem at?
 - For Construction Safety and Health Practitioners?
 - For Contractors and Workers?

Resulting “Top Problem” topics

Contributing factors relevant for all outcomes

- Construction Culture
- Construction Safety and Health Management
- Organization of construction work and the construction industry
- Training issues
- Vulnerable workers
- Design for construction safety
- Improving surveillance of hazards and outcomes

Resulting “Top Problems” topics cont.

Important Outcome topics

- Major sources of traumatic injuries and fatalities
 - Falls, Electrocutions, Struck by and caught between incidents
- Major health exposures/illnesses of concern
 - Silica, Noise, Welding fumes
- Major sources of musculoskeletal disorders
 - Prevalence and incidence, interventions for high risk tasks

4. Plans and Vision for the Decade

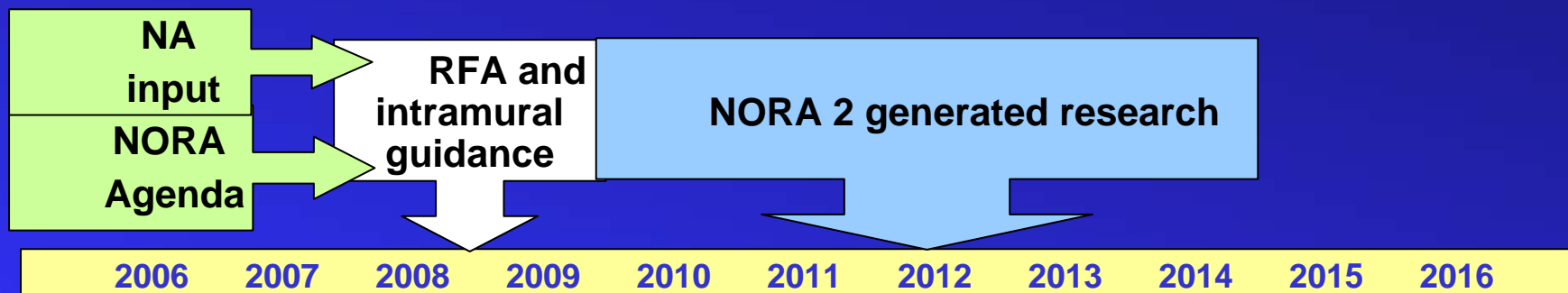
A. Research

NORA *National Agenda* + NA Construction Program
Review recommendations

as input to:

- Next 5 year Cooperative Agreement RFA (late 2008)
- Final NIOSH Construction Goals/intramural guidance

These will drive research direction from 2009-2014

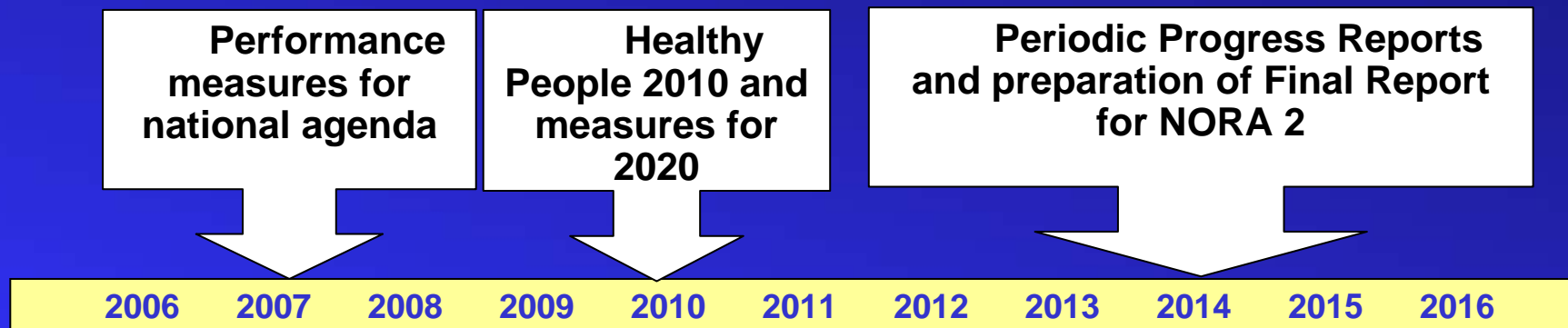
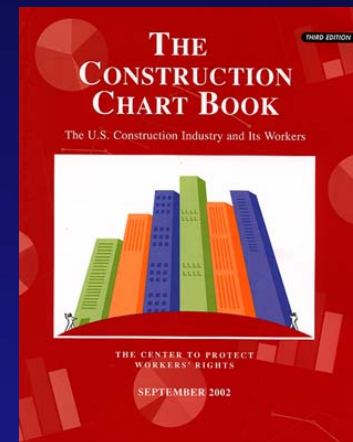


Plans and Vision for the Decade cont.

B. Surveillance/Industry tracking

Continue monitoring industry trends and outcome measures

- Pilot demonstration projects to fill gaps
- Develop health baselines and performance measures for National Agenda goals
- Track performance over time



Plan and Vision for the Decade cont.

C. Research to Practice



Upcoming focus area for NORA Council

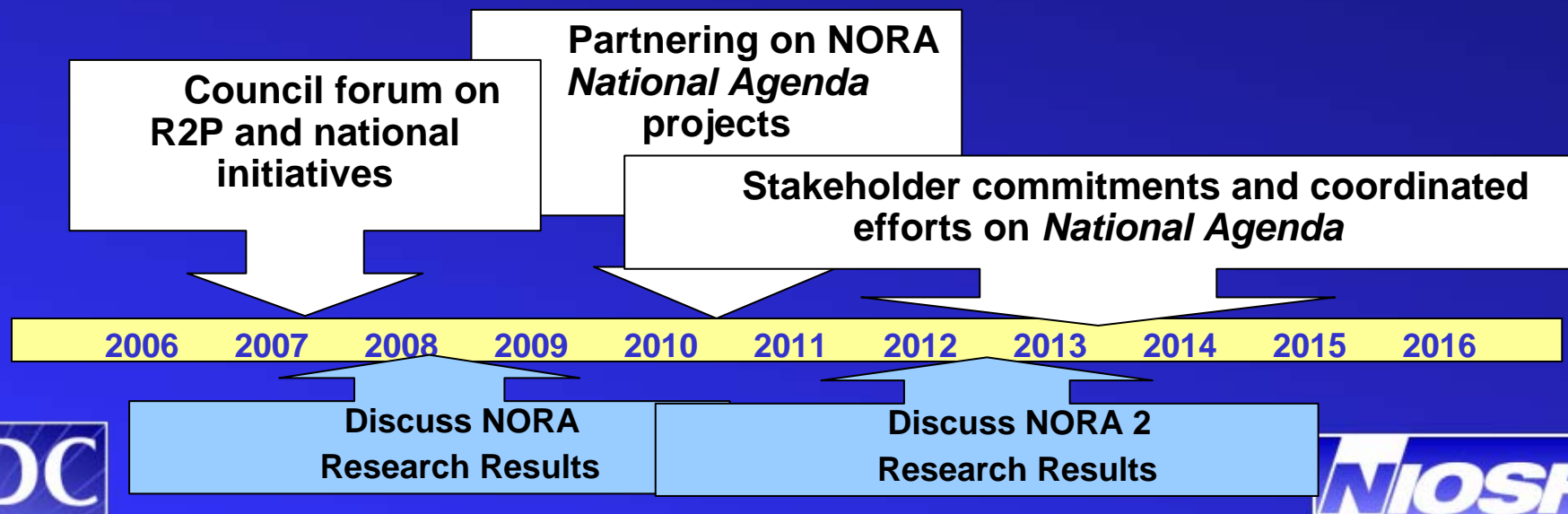
Taking a broad view of R2P concepts ...examples

- ♦ **New project partners** - Link researchers and partners for new NORA *National Agenda* projects
- ♦ **Ending project partners** - Discuss results and how best to disseminate and diffuse them to the industry
- ♦ **New products** – Forum for developing new outputs tailored to construction --- small employers, business case studies, materials for immigrant workers, etc
- ♦ **More products** – Creating more types of outputs from research results --- going for a multiplier effect

Plan and Vision for the Decade cont.

C. Research to Practice cont.

- ♦ **New activities** - Forum for new concepts to “make a difference” such as stakeholder **organizational commitments** to *National Agenda* goals or **social marketing** and diffusion and coordinated **campaigns** to extend reach – Examples:
 - ♦ National Falls Campaign
 - ♦ National *Prevention through Design* Construction Initiative



Program Coordination

- Strong coordination among the 3 arms of the program to benefit from synergy
- Balanced focus --- on national agenda and goals **but** with ability to respond to new and emerging issues over the decade
- R2P planning – upfront and flexible to assist and nurture researchers
- Ongoing visible tracking – via electronic repositories for NORA National Agenda research -- along with derived intermediate outputs and resulting intermediate outcomes over the decade

Summary Vision

- Goal-driven targeted research
- Tracking industry trends and developments
- Maximize impact with given resources
- Enhanced partnering
- Promote a “National Construction Agenda” that brings multiple efforts and resources to bear on construction safety and health
- Getting solutions to more of the industry via new diffusion approaches
- With our industry partners, achieving new breakthroughs that improve safety and health for all construction workers